Programmatic ESOH Evaluation
DoD Requirements & Expectations

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Outline

❖ **Background**

❖ **What is the Programmatic ESOH Evaluation (PESHE)?**

❖ **DoD Expectations For The PESHE**

❖ **Bottom Line**

❖ **Effective ESOH Efforts**

Background

- ❖ **As part of sustaining its mission DoD is committed to protecting**

  - ◆ personnel from accidental death, injury, or occupational illness

  - ◆ defense systems, infrastructure, and public property from accidental destruction, damage, or environmental impacts

- ❖ **To accomplish this in systems acquisition we must use the system safety methodology across ESOH disciplines to identify hazards and mitigate risks through the systems engineering process**

- ❖ **ESOH refers to all individual, but interrelated, disciplines that encompass environment, safety, and occupational health**

3

Background, Con't

❖ **MIL-STD-882D defines the system safety methodology that should be applied throughout the life cycle for any system, new development, upgrade, modification, resolution of deficiencies, or technology development**

  ♦ When properly applied, this methodology should ensure the identification and understanding of ESOH hazards and their associated risks

  ♦ The requirements also should eliminate hazards or reduce risks to acceptable levels through a systematic approach of hazard analysis and risk assessment and management

4

What Is The PESHE?

- ❖ **As part of executing ESOH requirements, PMs must prepare a PESHE regardless of the program's acquisition category designation**

- ❖ **Communicates to program managers (PM) and others the status of the ESOH effort and ESOH risk management for the system**

- ❖ **Prior to MS B, the PESHE serves as an initial planning document**

- ❖ **After MS B it documents the status of the program's ESOH efforts, including risk management and status**

DoD Expectations For The PESHE -- Bottom Line

❖ **Documents what the program IS doing and the results – not what policy says you should be doing**

❖ **Simply restating policy is NOT helpful**

  ♦ It's a disservice to the PM and tells the reviewer that the program is not thinking about needs to be done to implement a an effective ESOH effort

❖ **Reviewed with the basic assumption that the program is probably not fully compliant with policy**

❖ **Program "gets credit" for documenting what is actually going on with the ESOH effort**

6

*DoD Expectations For The PESHE**

❖ **There is no specific format for the PESHE, but all policy and guidance requirements are expected to be addressed**

   ◆ PM documents the PESHE in a manner most useful to the program and that best communicates to decision makers what ESOH considerations and risks affect the program

❖ **PESHE does not replace other ESOH plans, analyses, and reports**

   ◆ e.g., HAZMAT Management Plan, System Safety Analyses, Health Hazard Assessments

   ◆ The PM should minimize duplication of effort and documentation, giving preference to recording ESOH information in the PESHE

7

*Defense Acquisition Guidebook, Chapter 4 (revised, pending DAPWG approval)

DoD Expectations For The PESHE

❖ **At a minimum, the PESHE includes the following:**

- ♦ Strategy for integrating ESOH considerations into the systems engineering process

- ♦ Identification of who is responsible for implementing the ESOH strategy

- ♦ Approach to identifying ESOH hazards and managing the associated risks

- ♦ Specific risk matrix used by the PM, with definitions for severity categories and probability levels, risk assessment values, risk categories, risk acceptance and user concurrence authorities

- ♦ Identification of the method for tracking hazards, mitigation measures, and associated risk assessment values throughout the life cycle of the system, and documenting the verified effectiveness of ESOH risk mitigation measures

DoD Expectations For The PESHE

❖ **At a minimum, the PESHE includes the following:**

Prior to exposing people, equipment, or the environment to known system-related ESOH hazards, the PM shall document that the associated risks have been accepted by the following acceptance authorities: the CAE for high, PEO-level for serious, and the PM for medium and low risks. The user representative shall be part of this process throughout the life cycle and shall provide formal concurrence prior to all serious- and high-risk acceptance decisions.

DoDI 5000.02, Enclosure 12

♦ Process for acceptance of ESOH risks per DoDI 5000.02

♦ Identify mitigation status for all hazards whose initial risk category is high or serious; for each hazard identify the following details:

- the initial, current, and target risk categories with risk assessment values; the hazard identification number, title, and description; and, mitigation(s), mitigation status and date

9

DoD Expectations For The PESHE

❖ **At a minimum, the PESHE includes the following:**

♦ Identification of regulated hazardous materials, wastes, materials of evolving regulatory interest, and pollutants associated with the system and plans for their minimization and/or safe disposal

- Pollutants include discharges/emissions/noise
- Noise includes personnel exposure to noise levels and potential noise impacts to communities near military facilities and ranges
- PMs will need to collect, analyze, and possibly conduct specific tests to determine the estimated HAZMAT, waste, and pollutants associated with the system

♦ Identification of applicable ESOH technology requirements incorporated into the system design

♦ A self-evaluation of the ESOH effort using the ESOH Management Evaluation Criteria for DoD Acquisition

10

DoD Expectations For The PESHE

❖ **At a minimum, the PESHE includes the following:**

♦ Approach for integrating ESOH into T&E planning and reporting, as well as for providing safety releases prior to test activities

♦ PMs must ensure safety releases are provided to the developmental and operational test organizations in accordance with component regulations

♦ A safety release is normally provided after conducting appropriate hazard analysis and obtaining formal acceptance of identified ESOH risks expected to be present during testing

> *T&E planning shall consider the potential testing impacts on the environment (NEPA, 42 U.S.C. 4321-4347, and EO 12114).*
>
> *The PM, in concert with the user and the T&E community, shall provide safety releases (to include formal Environment, Safety, and Occupational Health (ESOH) risk acceptance in accordance with E12.6.) to the developmental and operational testers prior to any test using personnel.*
>
> *DoDI 5000.02, Enclosure 6*

11

DoD Expectations For The PESHE

❖ **At a minimum, the PESHE includes the following:**

♦ Approach for integrating ESOH hazard and associated risk information into the supportability strategy and/or fielding documentation

♦ Approach for integrating HAZMAT and other ESOH considerations (e.g., environmental impacts, personnel safety, regulatory compliance) into system demilitarization and disposal

♦ Approach for collaboration of ESOH and Human Systems Integration (HSI) and how the program avoids duplication between the HSI and ESOH efforts

DoD Expectations For The PESHE

❖ **The NEPA/EO 12114 Compliance Schedule must be presented in the PESHE and should include the following:**

♦ Events or proposed actions (such as, but not limited to T&E and fielding/basing activities) throughout the life cycle of the program that may require preparation of formal NEPA/EO 12114 documentation;

♦ The anticipated initiation date for each proposed event or action;

♦ Proponent responsible for preparing the NEPA/EO 12114 documentation for each proposed event or action;

♦ The anticipated type of NEPA/EO 12114 document (e.g., Categorical Exclusion, Environmental Assessment and Finding of No Significant Impact, Environmental Impact Statement, Record of Decision, Overseas Environmental Assessment, and Overseas Environmental Impact Statement) which the proponent should complete prior to the proposed action start date,

♦ The anticipated start and completion dates for the final NEPA/EO 12114 document; and

♦ The specific approval authority for the documents per DoDI 5000.02, E12

13

Worth restating – The Bottom Line

❖ **PESHE Documents what the program IS doing and the results – not what policy says you should be doing**

❖ **Simply restating policy is NOT helpful**

♦ It's a disservice to the PM and tells the reviewer that the program is not thinking about needs to be done to implement a an effective ESOH effort

❖ **Reviewed with the basic assumption that the program is probably not fully compliant with policy**

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14

Effective ESOH Efforts Encompass

❖ **Establishing ESOH responsibilities within the acquisition program's organizational structure**

❖ **Developing strategies to ensure compliance with ESOH regulatory requirements**

❖ **Identifying and managing hazardous materials, wastes, and pollutants for the life cycle of the system (including demilitarization and disposal)**

❖ **Identifying and tracking the mitigation of ESOH hazards and associated risks**

❖ **Formally accepting and communicating identified ESOH risks and their associated mitigations**

♦ Including obtaining formal user representative concurrence on high and serious risks

15

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Supporting Information

Definitions

❖ <u>Hazard.</u> A source or condition that, if triggered by one or more causal factor(s), can contribute to or result in a mishap

❖ <u>Risk (Hazard Risk).</u> A measure of the potential loss from a given hazard. Risk is a combined expression of the severity of the mishap and the probability of the causal factor(s)

❖ <u>Mishap.</u> An unplanned event or series of events resulting in death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment (includes negative environmental impacts and accidents)

Definitions, Con't.

❖ **Residual Risk.** **The risk level of an identified hazard that remains after all mitigation measures have been implemented, verified, validated, and formally accepted prior to fielding**

❖ **Event Risk.** **A measure of the risk from an identified hazard that applies only to the specified hardware/software configuration and event(s) of limited duration prior to fielding. Examples of events include testing, field user evaluation, and demonstrations**